



Locating Pins (Spherical Large Head)

D & P Tolerance Configurable

Locating Pins / Bushings for Locating Pins

D=5 is now available for Tapped Type.



D or P	Standard Grade				Precision Grade	
	M	P	G	H	A	B
1.00	+0.008	+0.012	-0.002	0		
3.00	+0.002	+0.006	-0.008	-0.010		
3.01	+0.012	+0.020	-0.004	0		
6.00	+0.004	+0.012	-0.012	-0.012		
6.01	+0.015	+0.024	-0.005	0	+0.005	0
10.00	+0.006	+0.015	-0.014	-0.015	-0.01	-0.005
10.01	+0.018	+0.029	-0.006	0		
18.00	+0.007	+0.018	-0.017	-0.018		
18.01	+0.021	+0.035	-0.007	0		
30.00	+0.008	+0.022	-0.020	-0.021		

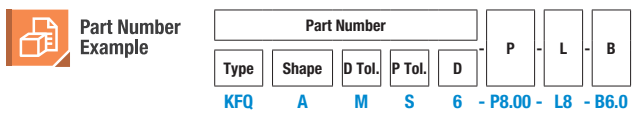
⊗ Precision Grade Tolerance is not available for Chrome Plating and Buffered Product Types.
 (Precision Grade A and B)
 ⊕ 440C or 420 Stainless Steel has an identification groove on D part.
 ⊖ Pins with small P dimension will have little sphere remaining due to the centering holes.

Type	Part Number			D	P	L	B	C	(W)
	Shape	D Tolerance Selection	P Tolerance Selection						
KFKQ GKFKQ SKFKQ HKFKQ CKFKQ	A Round	M P G H	S M P G H	1	1.00-3.00(2.50)	2, 3	2.0-5.0	0.1	
				2	2.00-6.00(4.00)	2-6	2.0-15.0(10.0)	0.5	1.2
				3	3.00-8.00	3-10	2.0-15.0(10.0)	1	1.5
				4	4.00-10.00	3(4)-14	2.0-15.0(10.0)	1.5	1.8
				5	5.00-10.00	5-15	2.0-15.0(10.0)	2	2.2
	D Diamond	*A *B	*A *B	6	6.00-10.00	5-15	2.0-30.0(15.0)	3	3.0
				8	8.00-15.00	5(6)-16	2.0-30.0(15.0)	1.5	3.5
				10	10.00-17.00	5(10)-20	3.0-30.0(25.0)	2	4.0
				12	12.00-18.00	6(10)-24	3.0-30.0(25.0)	2	5.0
				13	13.00-20.00	7(12)-26	5.0-30.0(25.0)	2	5.5
16	16.00-27.00	8(15)-32	5.0-30.0	3	7.0				
20	20.00-30.00	10(15)-40	5.0-30.0	3	9.0				

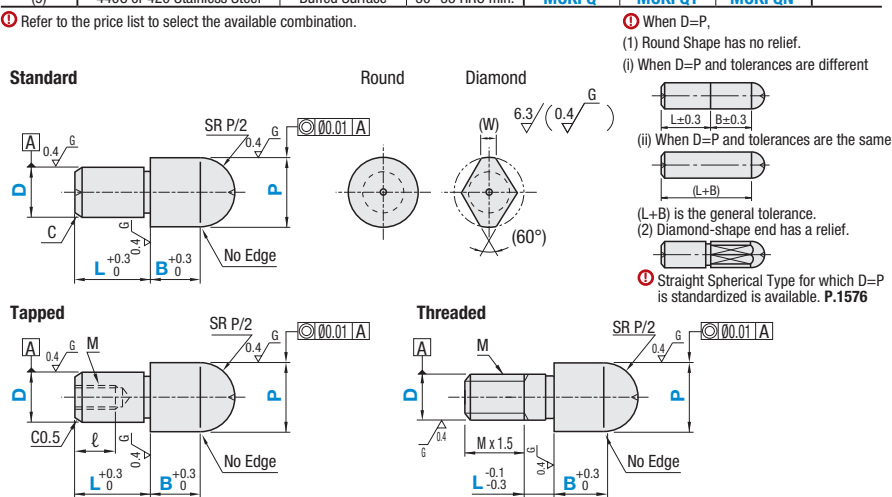
⊗ Precision Grade Tolerance is not available for Chrome Plating and Buffered Product Types.
 *(Precision Grade A and B)
 ⊕ P dimension (), L dimension (), B dimension () are applicable to diamond shape.

Type	Part Number			D	P	L	B	(W)	M	ℓ
	Shape	D Tolerance Selection	P Tolerance Selection							
KFKQT GKFKQT SKFKQT CKFKQT	A Round	M P G H	S M P G H	5	5.00-8.00	5 (9)-10	1.5-15.0(12.0)	2.2	M2	3
				6	6.00-10.00	6 (9)-12	1.5-15.0(12.0)	3.0	M3	4
				6T					M2,6	4
				8	8.00-15.00	8 (12)-16	1.5-30.0(15.0)	3.5	M5	8
				8T					M4	6
				10	10.00-17.00	10 (12)-20	3.0-30.0(20.0)	4.0	M5	8
				10T					M4	6
				12	12.00-18.00	12-24	3.0-30.0(20.0)	5.0	M5	8
	D Diamond	*A *B	*A *B	12T	12.00-18.00	8 (12)-18	3.0-30.0(20.0)	5.0	M4	6
				13	13.00-20.00	13 (14)-26	5.0-30.0(20.0)	5.5	M8	10
				13T					M6	9
				16	16.00-27.00	16-32	5.0-30.0(27.0)	7.0	M8	12
				16T					M6	9
				20	20.00-30.00	20-40	5.0-30.0	9.0	M8	12
				20T					M6	9
				20T	20.00-30.00	12 (18)-30	5.0-30.0	9.0	M6	9

⊕ Pins with D value ending in T (ex. 8T) have one size smaller thread diameter and larger wall thickness. (Actual D dimension is the number without "T")
 ⊖ L dimension () and B dimension () are applicable to diamond shape. ⊖ Note the strength of under-head part. P.1542 ⊖ Please confirm pilot hole depth on P.1542. Holes may go through.



Material No.	Material	Surface Treatment	Hardness	Type			Shape Code
				Standard	Tapped	Threaded	
(1)	O1 Tool Steel Equivalent	—	60-63 HRC min.	KFKQ	KFKQT	KFKQN	A Round D Diamond
(2)	O1 Tool Steel Equivalent	Chrome Plating	50-55 HRC min. Plating Hardness :750 HV min.	GKFKQ	GKFKQT	GKFKQN	
(3)	304 Stainless Steel Equivalent	—	—	SKFKQ	SKFKQT	SKFKQN	
(4)	304 Stainless Steel Equivalent	Chrome Plating	Plating Hardness :750 HV min.	HKFKQ	—	—	
(5)	440C or 420 Stainless Steel	—	50-55 HRC min.	CKFKQ	CKFKQT	CKFKQN	
(7)	O1 Tool Steel Equivalent	Buffered Surface	60-63 HRC min.	MKFKQ	MKFKQT	MKFKQN	
(8)	O1 Tool Steel Equivalent	Chrome Plating + Buffered Surface	50-55 HRC min. Plating Hardness :750 HV min.	MGKFKQ	MGKFKQT	MGKFKQN	
(9)	440C or 420 Stainless Steel	Buffered Surface	50-55 HRC min.	MCKFKQ	MCKFKQT	MCKFKQN	



Locating Pins (Spherical Large Head)

D & P Tolerance Configurable, continued

Locating Pins / Bushings for Locating Pins

Threaded

Type	Part Number			D	P	L	B	(W)	M
	Shape	D Tolerance Selection	P Tolerance Selection						
KFKQN GKFKQN* SKFKQN CKFKQN	A Round D Diamond	M P G H *A *B	S M P G H *A *B	3	3.50-8.00	0-6	2.0-10.0	1.5	M3
				4	4.50-8.00	0-8	2.0-10.0	1.8	M4
				5	5.50-8.00	0-10	2.0-15.0(10.0)	2.2	M5
				6	6.50-10.00	0-10	2.0-15.0	3.0	M6
				8	8.50-15.00	0-10	2.0-30.0(15.0)	3.5	M8
				10	11.00-17.00	0-15	3.0-30.0(25.0)	4.0	M10
				12	13.00-20.00(18.00)	0-15	3.0-30.0(25.0)	5.0	M12
				16	17.00-27.00	0-20	5.0-30.0	7.0	M16
				20	22.00-30.00	0-20	5.0-30.0	9.0	M20

⊗ Precision Grade Tolerance is not available for Chrome Plated and Buffered Product Types. ⊖ For full thread, specify L = 0 and alteration NNC.
 *(Precision Grade A and B)

Standard

D	Available Types for Round Shape					Available Types for Diamond Shape										
	(1) O1 Tool Steel Hardened KFKQA	(2) Hard O1 Tool Steel GKFKQA	(3) 304 Stainless Steel SKFKQA	(4) Hard 304 Stainless Steel HKFKQA	(5) 440C or 420 Stainless Steel CKFKQA	(7) O1 Tool Steel Hardened + Buffered MKFKQA	(8) Hard O1 Tool Steel + Buffered MGKFKQA	(9) 440C or 420 Stainless Steel + Buffered MCKFKQA	(1) O1 Tool Steel Hardened KFKQD	(2) Hard O1 Tool Steel GKFKQD	(3) 304 Stainless Steel SKFKQD	(4) Hard 304 Stainless Steel HKFKQD	(5) 440C or 420 Stainless Steel CKFKQD	(7) O1 Tool Steel Hardened + Buffered MKFKQD	(8) Hard O1 Tool Steel + Buffered MGKFKQD	(9) 440C or 420 Stainless Steel + Buffered MCKFKQD
1
2
3
4
5
6
8
10
12
13
16
20

Tapped

D	Available Types for Round Shape					Available Types for Diamond Shape								
	(1) O1 Tool Steel Hardened KFKTA	(2) Hard O1 Tool Steel GKFKTA	(3) 304 Stainless Steel SKFKTA	(5) 440C or 420 Stainless Steel CKFKTA	(7) O1 Tool Steel Hardened + Buffered MKFKTA	(8) Hard O1 Tool Steel + Buffered MGKFKTA	(9) 440C or 420 Stainless Steel + Buffered MCKFKTA	(1) O1 Tool Steel Hardened KFKTD	(2) Hard O1 Tool Steel GKFKTD	(3) 304 Stainless Steel SKFKTD	(5) 440C or 420 Stainless Steel CKFKTD	(7) O1 Tool Steel Hardened + Buffered MKFKTD	(8) Hard O1 Tool Steel + Buffered MGKFKTD	(9) 440C or 420 Stainless Steel + Buffered MCKFKTD
5
6
6T
8
8T
10
10T
12
12T
13
13T
16
16T
20
20T

Threaded

D	Available Types for Round Shape					Available Types for Diamond Shape								
	(1) O1 Tool Steel Hardened KFKNA	(2) Hard O1 Tool Steel GKFKNA	(3) 304 Stainless Steel SKFKNA	(5) 440C or 420 Stainless Steel CKFKNA	(7) O1 Tool Steel Hardened + Buffered MKFKNA	(8) Hard O1 Tool Steel + Buffered MGKFKNA	(9) 440C or 420 Stainless Steel + Buffered MCKFKNA	(1) O1 Tool Steel Hardened KFKND	(2) Hard O1 Tool Steel GKFKND	(3) 304 Stainless Steel SKFKND	(5) 440C or 420 Stainless Steel CKFKND	(7) O1 Tool Steel Hardened + Buffered MKFKND	(8) Hard O1 Tool Steel + Buffered MGKFKND	(9) 440C or 420 Stainless Steel + Buffered MCKFKND
3
4
5
6
8
10
12
16
20



Alterations	Radius	Wrench Hole	Air Vent	Insertion Guide	Relief	Wrench Flats
RC	RC (R0.5)	LAC	AC	GDC	NNC	SC
Spec.	Changes the relief to R0.5. - Ordering Code: RC - Applicable when P-D≥2	Machines wrench hole. - Ordering Code: LAC - The diamond shape Wrench Hole opens vertically However, the direction is arbitrary. - Male thread applies to D≥5 - Applicable when Q+1.5≤B - Press fit is not applicable. - Can not be combined with SC alteration.	Adds an air vent. - Not applicable to threaded type.	Adds the insertion guide. Ordering Code: GDC -Not applicable when D≤2 -Not applicable to threaded Type.	Ordering Code: NNC - Applicable when L=0 - Combination with RAC is not available - Adds a relief at the thread end.	SC = Specified in 1mm increments - Diamond shape is not applicable - P-3≤SC≤P-1, SC≥D - If B≤11, 2 surface width processing is included. - Can not be used with LAC

